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APPLICANT: Andrew Mark Gutman et al.

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EXAMINER: Robert Harrell

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STATEMENT OF STATUS AND SUPPORT FOR ALL CHANGES TO THE CLAIMS

UNDER 37 C.F.R. § 1.173(c)

Claim 1: Original- Pending – Not Amended

Claim 2: Original- Pending – Not Amended

Claim 3: Original- Pending – Not Amended

Claim 4: Original- Pending – Amended
Support: Per claim 4, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the PoP (col. 9 lines 4-15).

Claim 5: Original- Pending – Not Amended

Claim 6: Original- Pending – Not Amended

Claim 7: Original- Pending – Not Amended

Claim 8: Original- Pending – Not Amended

Claim 9: Original- Pending – Amended
Support: Per claim 9, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the PoP (col. 9 lines 4-15).

Claim 10: Original- Pending – Not Amended

Claim 11: Original- Pending – Not Amended

Claim 12: Original- Pending – Not Amended

Claim 13: Original- Pending – Amended
Support: Per claim 13, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the PoP (col. 9 lines 4-15).

Claim 14: Original- Pending – Not Amended

Claim 15: Original- Pending – Not Amended

Claim 16: Original- Pending – Not Amended

Claim 17: Original- Pending – Amended
Support: Per claim 17, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the PoP (col. 9 lines 4-15).

Claim 18: Original- Pending – Not Amended

Claim 19: Original- Pending – Not Amended

Claim 20: Original- Pending – Not Amended

Claim 21: Original- Pending – Amended
Support: Per claim 21, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the PoP (col. 9 lines 4-15).

Claim 22: Original- Pending – Not Amended

Claim 23: Original- Pending – Not Amended

Claim 24: Original- Pending – Not Amended

Claim 25: Original- Pending – Amended
Support: Per claim 25, the original patent specification shows
a method of managing network access requests to a data communications network, said method
   comprising:
receiving at a protocol gateway in a point of presence (PoP) of the data communications network
   a network access request from a user through a network access server (NAS) (col. 8 lines
   46-50, col. 9 lines 36-38, and FIG. 11 reference numeral 114);
parsing the network access request for an identification of the user's domain (col. 9 lines 38-39,
   and FIG. 11 reference numeral 116);
routing the network access request to an authentication, authorization and accounting (AAA)
   service associated with the PoP if the user's domain corresponds to that of the PoP (col. 9
   lines 39-41, and FIG. 11 reference numeral 118);
looking up a domain identification entry corresponding to the user's domain in a database if the
   user's domain does not correspond to that of the PoP (col. 9 lines 46-49, and FIG. 11
   reference numeral 122);
proxying the network access request to an AAA service in the user's domain at an address and
   port as specified in the domain identification entry of the database if the user's domain does
   not correspond to that of the PoP (col. 9 lines 50-52, and FIG. 11 reference numeral 124);
   and
assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain
   does not correspond to that of the PoP (col. 9 lines 4-15).

Claim 26: Original- Pending – Not Amended

Claim 27: Original- Pending – Not Amended

Claim 28: Original- Pending – Amended
Support: Per claim 28, the original patent specification shows said proxy database populated at
instantiation of said proxy service by receiving information published by said publisher from
said central database (col. 9 lines 16-31, FIG. 10 reference numeral 108).

Claim 29: Original- Pending – Not Amended

Claim 30: Original- Pending – Amended
Support: Per claim 30, the original patent specification shows said proxy databases populated at
instantiation of said respective proxy services by receiving information published by said
publisher from said central database (col. 9 lines 16-31, FIG. 10 reference numeral 108).

Claim 31: New- Pending
Support: Per claim 31, the original patent specification shows
a method for managing network access to a data communications network, said method
    comprising:
maintaining a central database coupled to the data communications network (col. 8 lines 37-45);
maintaining at least a first authentication, authorization and accounting (AAA) service at a first
    point of presence (PoP) of the data communications network and a second AAA service at a
    second PoP of the data communications network (col. 6 lines 61-65, and FIG. 7 reference
    numerals 32 and 30c);
configuring a database associated with the first AAA service from the central database by
    transporting information from the central database over the data communications network to
    the database associated with the first AAA service (col. 9 lines 16-31); and
configuring a database associated with the second AAA service from the central database by
    transporting information from the central database over the data communications network to
    the database associated with the second AAA service (col. 9 lines 16-31).

Claim 32: New- Pending
Support: Per claim 32, the original patent specification shows periodically updating the database
associated with the first AAA service from the central database by transporting information from
the central database over the data communications network to the database associated with the
first AAA service (col. 8 lines 36-45, FIG. 7 reference numerals 18, 22, 28c, and 30c).

Claim 33: New- Pending
Support: Per claim 33, the original patent specification shows periodically updating the database
associated with the second AAA service from the central database by transporting information
from the central database over the data communications network to the database associated with
the second AAA service (col. 8 lines 36-45, FIG. 7 reference numerals 18, 22, 28c, and 30c).

Claim 34: New- Pending
Support: Per claim 34, the original patent specification shows
receiving at a protocol gateway in the first PoP a network access request from a user through a
    network access server (NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference
    numeral 114);
parsing the network access request for an identification of the user's domain (col. 9 lines 38-39,
    and FIG. 11 reference numeral 116);
routing the network access request to the first AAA service at the first PoP if the user's domain
    corresponds to that of the first PoP (col. 9 lines 39-41, and FIG. 11 reference numeral 118);
looking up a domain identification entry corresponding to the user's domain in the first AAA
    service's database if the user's domain does not correspond to that of the first PoP (col. 9
    lines 46-49, and FIG. 11 reference numeral 122);
proxying the network access request to an AAA service in the user's domain at an address and
    port as specified in the domain identification entry of the database if the user's domain does
    not correspond to that of the first PoP (col. 9 lines 50-52, and FIG. 11 reference numeral
    124).

Claim 35: New- Pending
Support: Per claim 35, the original patent specification shows obtaining an IP address for the user from the AAA service in the user's domain if the user's domain does not correspond to that of the first PoP (col. 9 lines 52-53).

Claim 36: New- Pending
Support: Per claim 36, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the first PoP (col. 9 lines 4-15).

Claim 37: New- Pending
Support: Per claim 37, the original patent specification shows assigning an IP address to the user from an IP address pool identified in an access-accept packet received from the user's domain's AAA service if the user's domain does not correspond to that of the first PoP (col. 8 line 64 to col. 9 line 3, col. 9, lines 9-15).

Claim 38: New- Pending
Support: Per claim 38, the original patent specification shows
a method for managing network access to a data communications network, said method
        comprising:
maintaining a central database coupled to the data communications network (col. 8 lines 37-45);
maintaining a plurality of first authentication, authorization and accounting (AAA) services at a
        first point of presence (PoP) of the data communications network and a second AAA service
        at a second PoP of the data communications network (col. 6 lines 61-65, and FIG. 7
        reference numerals 32 and 30c);
configuring one or more databases associated with the first AAA services from the central
        database by transporting information from the central database over the data
        communications network to the database(s) associated with the first AAA services (col. 9
        lines 16-31); and
configuring a database associated with the second AAA service from the central database by
        transporting information from the central database over the data communications network to
        the database associated with the second AAA service (col. 9 lines 16-31).

Claim 39: New- Pending
Support: Per claim 39, the original patent specification shows
receiving at a protocol gateway in the first PoP a network access request from a user through a
        network access server (NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference
        numeral 114);
parsing the network access request for an identification of the user's domain (col. 9 lines 38-39,
        and FIG. 11 reference numeral 116);
routing the network access request to one of said plurality of first AAA services at the first PoP if
        the user's domain corresponds to that of the first PoP while load balancing among said
        plurality of first AAA services (col. 9 lines 39-41, and FIG. 11 reference numeral 118);

looking up a domain identification entry corresponding to the user's domain in one of said
plurality of first AAA service's database(s) if the user's domain does not correspond to that
of the first PoP (col. 9 lines 46-49, and FIG. 11 reference numeral 122);
proxying the network access request to an AAA service in the user's domain at an address and
port as specified in the domain identification entry of the database if the user's domain does
not correspond to that of the first PoP (col. 9 lines 50-52, and FIG. 11 reference numeral
124).

Claim 40: New- Pending
Support: Per claim 40, the original patent specification shows obtaining an IP address for the
user from the AAA service in the user's domain if the user's domain does not correspond to that
of the first PoP (col. 9 lines 52-53).

Claim 41: New- Pending
Support: Per claim 41, the original patent specification shows assigning an IP address to the user
from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the
first PoP (col. 9 lines 4-15).

Claim 42: New- Pending
Support: Per claim 42, the original patent specification shows assigning an IP address to the user
from an IP address pool identified in an access-accept packet received from the user's domain's
AAA service if the user's domain does not correspond to that of the first PoP (col. 8 line 64 to
col. 9 line 3, col. 9, lines 9-15).

Claim 43: New- Pending
Support: Per claim 43, the original patent specification shows
a method for managing network access to a data communications network, said method
comprising:
maintaining a central database coupled to the data communications network, said central
database containing access information for authentication, authorization and accounting
(AAA) services associated with domains of the data communications network (col. 8 lines
37-45);
maintaining at a first point of presence (PoP) of the data communications network at least one
first AAA service (col. 6 lines 61-65, and FIG. 7 reference numerals 32 and 30c) and at least
one first proxy service (FIG. 7 reference numeral 28b) and at least one first protocol
gateway (FIG. 7 reference numeral 30a) in communication with a network access server
(NAS) (FIG. 7);
periodically transporting information contained in the central database from the central database,
over the data communications network, to the first AAA service(s) (col. 8 lines 36-45, FIG.
7 reference numerals 18, 22, 28c, and 30c), the first proxy service(s) (FIG. 7 reference
numeral 30b) and the first protocol gateway(s) (FIG. 7 reference numeral 30a);
receiving at a protocol gateway in the first PoP a network access request from a user through a
network access server (NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference
numeral 114);

parsing the network access request at the first protocol gateway for an identification of the user's domain (col. 9 lines 38-39, and FIG. 11 reference numeral 116);

routing the network access request to an AAA service at the first PoP if the user's domain corresponds to that of the first PoP (col. 9 lines 39-41, and FIG. 11 reference numeral 118);

looking up access information within a domain identification entry corresponding to the user's domain in a database associated with the first proxy server if the user's domain does not correspond to that of the first PoP (col. 9 lines 46-49, and FIG. 11 reference numeral 122); and

proxying the network access request to an AAA service in the user's domain at an address and port as specified in the access information if the user's domain does not correspond to that of the first PoP (col. 9 lines 50-52, and FIG. 11 reference numeral 124).

Claim 44: New- Pending
Support: Per claim 44, the original patent specification shows obtaining an IP address for the user from an AAA service in the user's domain if the user's domain does not correspond to that of the first PoP (col. 9 lines 52-53).

Claim 45: New- Pending
Support: Per claim 45, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the first PoP (col. 9 lines 4-15).

Claim 46: New- Pending
Support: Per claim 46, the original patent specification shows assigning an IP address to the user from an IP address pool identified in an access-accept packet received from the user's domain's AAA service if the user's domain does not correspond to that of the first PoP (col. 8 line 64 to col. 9 line 3, col. 9, lines 9-15).

Claim 47: New- Pending
Support: Per claim 47, the original patent specification shows
a method for managing network access requests to a data communications network, said method comprising:

receiving at a protocol gateway in a first point of presence (PoP) of the data communications network a network access request from a user received through a network access server (NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference numeral 114);

parsing the network access request for an identification of the user's domain (col. 9 lines 38-39, and FIG. 11 reference numeral 116);

routing the network access request to one of the plurality of authentication, authorization and accounting (AAA) services associated with the first PoP if the user's domain corresponds to that of the first PoP while load balancing among the plurality of AAA services (col. 9 lines 39-41, and FIG. 11 reference numeral 118);

looking up a domain identification entry corresponding to the user's domain in a database associated with the one AAA if the user's domain does not correspond to that of the first PoP (col. 9 lines 46-49, and FIG. 11 reference numeral 122);

proxying the network access request via one of a plurality of proxy services to an AAA service in the user's domain at an address and port as specified in the domain identification entry of the database if the user's domain does not correspond to that of the first PoP while load balancing among the plurality of proxy services (col. 9 lines 50-52, and FIG. 11 reference numeral 124).

Claim 48: New- Pending
Support: Per claim 48, the original patent specification shows obtaining an IP address for the user from the AAA service in the user's domain if the user's domain does not correspond to that of the first PoP (col. 9 lines 52-53).

Claim 49: New- Pending
Support: Per claim 49, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the first PoP (col. 9 lines 4-15).

Claim 50: New- Pending
Support: Per claim 50, the original patent specification shows assigning an IP address to the user from an IP address pool identified in an access-accept packet received from the user's domain's AAA service if the user's domain does not correspond to that of the first PoP (col. 8 line 64 to col. 9 line 3, col. 9, lines 9-15).

Claim 51: New- Pending
Support: Per claim 51, the original patent specification shows
a method for managing network access to a data communications network, said method comprising:
maintaining a central database, said central database containing access information for authentication, authorization and accounting services associated with domains of the data communications network (col. 8 lines 37-45);
maintaining at a first point of presence (PoP) of the data communications network a plurality of AAA services at least one AAA service (col: 6 lines 61-65, and FIG. 7 reference numerals 32 and 30c) and at least one proxy service (FIG. 7 reference numeral 28b) and at least one protocol gateway (FIG. 7 reference numeral 30a) in communication with a network access server (NAS) (FIG. 7);
periodically transmitting information contained in said central database over the data communications network to said AAA (col. 8 lines 36-45, FIG. 7 reference numerals 18, 22, 28c, and 30c) and said proxy service (FIG. 7 reference numeral 28b);
receiving at a protocol gateway in the PoP a network access request from a user through a network access server (NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference numeral 114);
parsing the network access request at the protocol gateway for an identification of the user's domain (col. 9 lines 38-39, and FIG. 11 reference numeral 116);
routing the network access request to one of said plurality of AAA services at the first PoP if the user's domain corresponds to that of the first PoP while load balancing among said plurality of AAA services (col. 9 lines 39-41, and FIG. 11 reference numeral 118);

looking up access information within a domain identification entry corresponding to the user's
domain in a database associated with one of said plurality of proxy services if the user's
domain does not correspond to that of the first PoP while load balancing among said
plurality of proxy services (col. 9 lines 46-49, and FIG. 11 reference numeral 122); and
proxying the network access request to an AAA service in the user's domain at an address and
port as specified in the access information if the user's domain does not correspond to that of
the first PoP (col. 9 lines 50-52, and FIG. 11 reference numeral 124).

Claim 52: New- Pending
Support: Per claim 52, the original patent specification shows obtaining an IP address for the
user from an AAA service in the user's domain if the user's domain does not correspond to that
of the first PoP (col. 9 lines 52-53).

Claim 53: New- Pending
Support: Per claim 53, the original patent specification shows assigning an IP address to the user
from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the
first PoP (col. 9 lines 4-15).

Claim 54: New- Pending
Support: Per claim 54, the original patent specification shows assigning an IP address to the user
from an IP address pool identified in an access-accept packet received from the user's domain's
AAA service if the user's domain does not correspond to that of the first PoP (col. 8 line 64 to
col. 9 line 3, col. 9, lines 9-15).

Claim 55: New- Pending
Support: Per claim 55, the original patent specification shows
a method for managing network access requests to a data communications network, said method
comprising:
periodically transmitting updating information contained in a central database over the data
communications network to an authentication, authorization and accounting (AAA) service
associated with a first point of presence (PoP) of the data communications network (col. 8
lines 36-45, FIG. 7 reference numerals 18, 22, 28c, and 30c);
receiving at a protocol gateway in the first point of presence (PoP) of the data communications
network a network access request from a user received through a network access server
(NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference numeral 114);
parsing the network access request for an identification of the user's domain (col. 9 lines 38-39,
and FIG. 11 reference numeral 116);
routing the network access request to the AAA service associated with the first PoP if the user's
domain corresponds to that of the first PoP (col. 9 lines 39-41, and FIG. 11 reference
numeral 118);
looking up a domain identification entry corresponding to the user's domain in a database if the
user's domain does not correspond to that of the first PoP (col. 9 lines 46-49, and FIG. 11
reference numeral 122);
proxying the network access request to an AAA service in the user's domain at an address and
port as specified in the domain identification entry of the database if the user's domain does

not correspond to that of the first PoP (col. 9 lines 50-52, and FIG. 11 reference numeral 124).

Claim 56: New- Pending
Support: Per claim 56, the original patent specification shows obtaining an IP address for the user from the AAA service in the user's domain if the user's domain does not correspond to that of the first PoP (col. 9 lines 52-53).

Claim 57: New- Pending
Support: Per claim 57, the original patent specification shows assigning an IP address to the user from a local DHCP pool of IP addresses if the user's domain does not correspond to that of the first PoP (col. 9 lines 4-15).

Claim 58: New- Pending
Support: Per claim 58, the original patent specification shows assigning an IP address to the user from an IP address pool identified in an access-accept packet received from the user's domain's AAA service if the user's domain does not correspond to that of the first PoP (col. 8 line 64 to col. 9 line 3, col. 9, lines 9-15).

Claim 59: New- Pending
Support: Per claim 59, the original patent specification shows
a system for data communications network access management, comprising:
a central database containing information identifying access information for authentication, authorization and accounting (AAA) services associated with domains of the data communications network (col. 8 lines 37-45);
a first point of presence (PoP) on the data communications network, said first PoP including a protocol gateway in communication with at least one network access server (NAS) (col. 6 line 61 to col 7 line 42, FIG. 7 reference numerals 32 and 30a);
an AAA service associated with said first PoP and in communication with said protocol gateway and the data communications network (col. 6 lines 61-65, and FIG. 7 reference numerals 32 and 30c);
a proxy service associated with the first PoP and in communication with said protocol gateway and the data communications network (col. 6 line 61 to col 7 line 42, FIG. 7 reference numerals 30a, 30b, and 32),
a transmitter, said transmitter transmitting information from said central database to said AAA service at said first PoP and said proxy service at said first PoP over the data communications network (col. 6 lines 35-60, FIG. 7 reference numerals 18, 22, 24, 28b, 30c, and 32);
said protocol gateway receiving network access requests from users over the NAS, parsing the requests for domain identification and routing the requests for domains other than those associated with the first PoP to the proxy service (col. 9 lines 38-39, and FIG. 11 reference numeral 116),
said proxy service routing network access requests to AAA services in remote domains in accordance with said access information (col. 4 lines 49-52, col. 9 lines 42-46).

Claim 60: New- Pending
Support: Per claim 60, the original patent specification shows
an AAA database associated with said AAA service at said first PoP (col. 6 lines 61-65, and FIG.
7 reference numerals 32 and 30c);
a proxy database associated with said proxy service at said first PoP (FIG. 7 reference numeral
30b),
said AAA database populated at instantiation of said AAA service by receiving information
transmitted by said transmitter from said central database (col. 9 lines 16-31, FIG. 9
reference numeral 102),
said proxy database populated at instantiation of said proxy service by receiving information
transmitted by said transmitter from said database (col. 9 lines 16-31, FIG. 10 reference
numeral 108).

Claim 61: New- Pending
Support: Per claim 61, the original patent specification shows
a system for data communications network access management, comprising:
a central database containing information identifying access information for authentication,
authorization and accounting (AAA) services associated with domains of the data
communications network (col. 8 lines 37-45);
a first point of presence (PoP) on the data communications network, said first PoP including a
protocol gateway in communication with at least one network access server (NAS) (col. 6
line 61 to col 7 line 42, FIG. 7 reference numerals 32 and 30a);
a plurality of AAA services associated with said first PoP and in communication with said
protocol gateway (col. 6 lines 61-65, and FIG. 7 reference numerals 32 and 30c), said AAA
services subscribing to information published by said publisher (col. 7 lines 45-53);
a plurality of proxy services associated with said first PoP and in communication with said
protocol gateway, said proxy services subscribing to information published by said publisher
(col. 7 lines 45-53); and
a transmitter, said transmitter transmitting information from said central database over the data
communications network to said plurality of AAA services associated with said first PoP
and to said plurality of proxy services associated with said first PoP (col. 6 lines 35-60, FIG.
7 reference numerals 22, 24, 28b, 30c, and 32),
said protocol gateway receiving network access requests from users over the NAS, parsing the
requests for domain identification (col. 9 lines 38-39, and FIG. 11 reference numeral 116)
and routing the requests for domains other than those associated with the first PoP to one of
said plurality of proxy services while load balancing among them,
said proxy service routing network access requests to AAA services in remote domains in
accordance with said access information (col. 4 lines 49-52, col. 9 lines 42-46).

Claim 62: New- Pending
Support: Per claim 62, the original patent specification shows
a plurality of AAA databases associated with said respective AAA services at said first PoP (col.
6 lines 61-65, and FIG. 7 reference numerals 32 and 30c); and
a plurality of proxy databases associated with said respective proxy services at said first PoP,

said AAA databases populated at instantiation of said respective AAA services by receiving
information transmitted by said transmitter from said central database (col. 9 lines 16-31,
FIG. 9 reference numeral 102),

said proxy databases populated at instantiation of said respective proxy services by receiving
information transmitted by said transmitter from said central database (col. 9 lines 16-31,
FIG. 10 reference numeral 108).

Claim 63: New- Pending
Support: Per claim 63, the original patent specification shows
a system for managing access to a data communications network, said system comprising:
means for communicating with a central database via the data communications network, the
central database containing information identifying access information for authentication,
authorization and accounting (AAA) services associated with domains of the data
communications network (col. 8 lines 37-45, FIG. 7 reference numeral 22);
means for communicating with a local AAA service associated with a local Point of Presence
(PoP) (col. 6 lines 61-65, and FIG. 7 reference numerals 32, 30c, and 22);
means for communicating with a remote AAA service via a local proxy service (col. 9 lines 42-
53, FIG. 7 reference numerals 22 and 30b);
means for instantiating the local AAA service from the central database (col. 9 lines 16-31, FIG.
9 reference numeral 102);
means for receiving a network access request from a user through a local network access server
(NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference numeral 114);
means for checking the network access request to determine an identification of the user's
domain (col. 9 lines 38-39, and FIG. 11 reference numeral 116);
means for routing the network access request to the local AAA service if the user's domain
corresponds to that of the local PoP (col. 9 lines 39-41, FIG. 11 reference numeral 118, FIG.
7 reference numeral 22);
means for looking up a domain identification entry corresponding to the user's domain in the
local AAA service's database if the user's domain does not correspond to that of the local
PoP (col. 9 lines 46-49, FIG. 11 reference numeral 122, FIG. 7 reference numeral 34); and
means for proxying the network access request to a remote AAA service in the user's domain at
an address and port as specified in the domain identification entry of the database if the
user's domain does not correspond to that of the local PoP (col. 9 lines 50-52, FIG. 11
reference numeral 124, and FIG. 7 reference numeral 30b).

Claim 64: New- Pending
Support: Per claim 64, the original patent specification shows
a system for managing access to a data communications network, said system comprising:
means for communicating with a central database via the data communications network, the
central database containing information identifying access information for authentication,
authorization and accounting (AAA) services associated with domains of the data
communications network (col. 8 lines 37-45, FIG. 7 reference numeral 22);
means for communicating with a plurality of local AAA services associated with a local Point of
Presence (PoP) (col. 6 lines 61-65, and FIG. 7 reference numerals 32, 30c, and 22);

means for communicating with a plurality of local proxy services associated with the local PoP
(FIG. 7 reference numerals 22 and 28b);

means for communicating with a remote AAA service via a local proxy service (col. 9 lines 42-
53, FIG. 7 reference numerals 22 and 30b);

means for instantiating the local AAA services from the central database (col. 9 lines 16-31, FIG.
9 reference numeral 102);

means for instantiating the local proxy services from the central database (col. 9 lines 16-31,
FIG. 10 reference numeral 108);

means for receiving a network access request from a user through a local network access server
(NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference numeral 114);

means for checking the network access request to determine an identification of the user's
domain (col. 9 lines 38-39, and FIG. 11 reference numeral 116);

means for routing the network access request to the local AAA service if the user's domain
corresponds to that of the local PoP (col. 9 lines 39-41, FIG. 11 reference numeral 118, FIG.
7 reference numeral 22);

means for looking up a domain identification entry corresponding to the user's domain with the
local AAA services if the user's domain does not correspond to that of the local PoP (col. 9
lines 46-49, FIG. 11 reference numeral 122, FIG. 7 reference numeral 34);

means for proxying the network access request to a remote AAA service in the user's domain at
an address and port as specified in the domain identification entry of the local AAA services'
database if the user's domain does not correspond to that of the local PoP (col. 9 lines 50-52,
FIG. 11 reference numeral 124, and FIG. 7 reference numeral 30b); and

means for receiving network access requests from users over a network access server (NAS),
parsing the requests for domain identification (col. 9 lines 38-39, and FIG. 11 reference
numeral 116) and routing the requests for domains other than those associated with the first
PoP to one of said plurality of proxy services while load balancing among them,

said proxy service routing network access requests to the remote AAA service in accordance
with said access information (col. 4 lines 49-52, col. 9 lines 42-46).

Claim 65: New- Pending
Support: Per claim 65, the original patent specification shows
a method for accounting for use of a data communications network, said method comprising:
means for communicating with a central database via the data communications network, the
central database containing information identifying access information for authentication,
authorization and accounting (AAA) services associated with domains of the data
communications network (col. 8 lines 37-45, FIG. 7 reference numeral 22);

means for communicating with at least one local AAA service associated with a local Point of
Presence (PoP) (col. 6 lines 61-65, and FIG. 7 reference numerals 32, 30c, and 22);

means for communicating with a remote AAA service (col. 9 lines 42-53, FIG. 7 reference
numerals 22 and 30b);

means for instantiating the local AAA services from the central database (col. 9 lines 16-31, FIG.
9 reference numeral 102);

means for receiving a network access request from a user through a local network access server
(NAS) (col. 8 lines 46-50, col. 9 lines 36-38, and FIG. 11 reference numeral 114);

means for checking the network access request to determine an identification of the user's
domain (col. 9 lines 38-39, and FIG. 11 reference numeral 116);

means for routing accounting information associated with the user to the local AAA service if
the user's domain corresponds to that of the local PoP (col. 10 lines 18-20, FIG. 13 reference
numeral 136);

means for looking up a domain identification entry corresponding to the user's domain with the
local AAA services if the user's domain does not correspond to that of the local PoP (col. 10
lines 20-23, FIG. 13 reference numeral 138);

means for routing the accounting information to a remote AAA service in the user's domain at an
address and port as specified in the domain identification entry of the local AAA services'
database if the user's domain does not correspond to that of the local PoP (col. 10 lines 20-
23, FIG. 13 reference numeral 138).

Claim 66: New- Pending
Support: Per claim 66, the original patent specification shows
a method for managing network access accounting in a data communications network, said
method comprising:
maintaining a central database coupled to the data communications network (col. 8 lines 37-45);
maintaining at least a local authentication, authorization and accounting (AAA) service at a local
point of presence (PoP) of the data communications network (col. 6 lines 61-65, and FIG. 7
reference numerals 32 and 30c);
configuring a database associated with the local AAA service from the central database by
transporting information from the central database over the data communications network to
the database associated with the local AAA service (col. 9 lines 16-31);
receiving accounting information from a network access server (NAS) responsive to utilization
of the data communications network by a user coupled to the data communications network
through the NAS (col. 10 lines 14, FIG. 13 reference numeral 132);
forwarding said accounting information to the local AAA service if the user's domain
corresponds to that of the local PoP (col. 10 lines 18-20, FIG. 13 reference numeral 136);
and
forwarding said accounting information to a remote AAA service in the user's domain at an
address and port as specified in the domain identification entry of the local AAA service's
database if the user's domain does not correspond to that of the local PoP (col. 10 lines 20-
23, FIG. 13 reference numeral 138).

Claim 67: New- Pending
Support: Per claim 67, the original patent specification shows
an apparatus for managing network access accounting in a data communications network, said
apparatus comprising:
means for maintaining a central database coupled to the data communications network (col. 8
lines 37-45);
means for maintaining at least a local authentication, authorization and accounting (AAA)
service at a local point of presence (PoP) of the data communications network (col. 6 lines
61-65, and FIG. 7 reference numerals 32 and 30c);

means for configuring a database associated with the local AAA service from the central
database by transporting information from the central database over the data
communications network to the database associated with the local AAA service (col. 9 lines
16-31, FIG. 7 reference numeral 16);

means for receiving accounting information from a network access server (NAS) responsive to
utilization of the data communications network by a user coupled to the data
communications network through the NAS (col. 10 lines 14, FIG. 13 reference numeral
132);

means for forwarding said accounting information to the local AAA service if the user's domain
corresponds to that of the local PoP (col. 10 lines 18-20, FIG. 13 reference numeral 136);
and

means for forwarding said accounting information to a remote AAA service in the user's domain
at an address and port as specified in the domain identification entry of the local AAA
service's database if the user's domain does not correspond to that of the local PoP (col. 10
lines 20-23, FIG. 13 reference numeral 138).

Claim 68: New- Pending
Support: Per claim 68, the original patent specification shows
a system for managing network access to a data communications network, said method
comprising:
a central database coupled to the data communications network (col. 8 lines 37-45);
at least a first authentication, authorization and accounting (AAA) service at a first point of
presence (PoP) of the data communications network and a second AAA service at a second
PoP of the data communications network (col. 6 lines 61-65, and FIG. 7 reference numerals
32 and 30c); and
a database configurer configuring a database associated with the first AAA service from the
central database by transporting information from the central database over the data
communications network to the database associated with the first AAA service and
configuring a database associated with the second AAA service from the central database by
transporting information from the central database over the data communications network to
the database associated with the second AAA service (col. 9 lines 16-31, FIG. 7 reference
numeral 16).

Claim 69: New- Pending
Support: Per claim 69, the original patent specification shows
an apparatus for managing network access to a data communications network, said method
comprising:
means for maintaining a central database coupled to the data communications network (col. 8
lines 37-45);
means for maintaining at least a first authentication, authorization and accounting (AAA) service
at a first point of presence (PoP) of the data communications network and a second AAA
service at a second PoP of the data communications network (col. 6 lines 61-65, and FIG. 7
reference numerals 32 and 30c);
means for configuring a database associated with the first AAA service from the central database
by transporting information from the central database over the data communications network

to the database associated with the first AAA service (col. 9 lines 16-31, FIG. 7 reference
numeral 16); and
means for configuring a database associated with the second AAA service from the central
database by transporting information from the central database over the data
communications network to the database associated with the second AAA service (col. 9
lines 16-31, FIG. 7 reference numeral 16).

Claim 70: New- Pending
Support: Per claim 70, the original patent specification shows
a system for managing network access to a data communications network, said method
comprising:
a central database coupled to the data communications network (col. 8 lines 37-45);
a plurality of first authentication, authorization and accounting (AAA) services disposed at a
first point of presence (PoP) of the data communications network and a second AAA service
disposed at a second PoP of the data communications network (col. 6 lines 61-65, and FIG.
7 reference numerals 32 and 30c);
a first database configurer configuring one or more databases associated with the first AAA
services from the central database by transporting information from the central database
over the data communications network to the database(s) associated with the first AAA
services (col. 9 lines 16-31, FIG. 7 reference numeral 16); and
a second database configurer configuring a database associated with the second AAA service
from the central database by transporting information from the central database over the data
communications network to the database associated with the second AAA service (col. 9
lines 16-31, FIG. 7 reference numeral 16).

Claim 71: New- Pending
Support: Per claim 71, the original patent specification shows
an apparatus for managing network access to a data communications network, said method
comprising:
means for maintaining a central database coupled to the data communications network (col. 8
lines 37-45);
means for maintaining a plurality of first authentication, authorization and accounting (AAA)
service at a first point of presence (PoP) of the data communications network and a second
AAA service at a second PoP of the data communications network (col. 6 lines 61-65, and
FIG. 7 reference numerals 32 and 30c); and
means for configuring one or more databases associated with the first AAA services from the
central database by transporting information from the central database over the data
communications network to the database(s) associated with the first AAA services (col. 9
lines 16-31, FIG. 7 reference numeral 16); and
means for configuring a database associated with the second AAA service from the central
database by transporting information from the central database over the data
communications network to the database associated with the second AAA service (col. 9
lines 16-31, FIG. 7 reference numeral 16).

Claim 72: New- Pending
Support: Per claim 72, the original patent specification shows
a system for managing network access to a data communications network, said method
    comprising:
a central database coupled to the data communications network (col. 8 lines 37-45);
a plurality of first authentication, authorization and accounting (AAA) services disposed at a
    first point of presence (PoP) of the data communications network and a second AAA service
    disposed at a second PoP of the data communications network (col. 6 lines 61-65, and FIG.
    7 reference numerals 32 and 30c); and
a database configurer configuring one or more databases associated with the first AAA services
    from the central database by transporting information from the central database over the data
    communications network to the database(s) associated with the first AAA services and
    configuring a database associated with the second AAA service from the central database by
    transporting information from the central database over the data communications network to
    the database associated with the second AAA service (col. 9 lines 16-31, FIG. 7 reference
    numeral 16).

Claim 73: New- Pending
Support: Per claim 73, the original patent specification shows
an apparatus for managing network access to a data communications network, said method
    comprising:
means for maintaining a central database coupled to the data communications network (col. 8
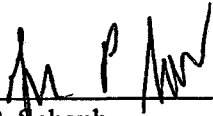   lines 37-45);
means for maintaining a plurality of first authentication, authorization and accounting (AAA)
    service at a first point of presence (PoP) of the data communications network and a second
    AAA service at a second PoP of the data communications network (col. 6 lines 61-65, and
    FIG. 7 reference numerals 32 and 30c); and
means for configuring one or more databases associated with the first AAA services from the
    central database by transporting information from the central database over the data
    communications network to the database(s) associated with the first AAA services and for
    configuring a database associated with the second AAA service from the central database by
    transporting information from the central database over the data communications network to
    the database associated with the second AAA service (col. 9 lines 16-31, FIG. 7 reference
    numeral 16).

The Commissioner is hereby authorized to charge any additional fees or credit any

overpayment to Deposit Account No. 50-1698.

Respectfully submitted,
THELEN REID & PRIEST LLP

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John P. Schaub
Reg. No. 42,125

THELEN REID & PRIEST LLP
P.O. Box 640640
San Jose, CA 95164-0640
Phone: (408) 292-5800
Fax: (408) 287-8040